What is claimed is:

1. A method for providing data bits from a received signal comprising frames containing a first predetermined number of samples, comprising the steps of:

(a) for at least one of said frames, creating N blocks of a second predetermined number of samples in said frame;

(b) for at least one of said N blocks, determining if said block is corrupted;

(c) for at least one of said N blocks, determining estimated symbols from the samples in said block;

(d) coherently combining the estimated symbols in a third predetermined number of said N blocks that are not corrupted to thereby provide said data bits.

2. The method of Claim 1 wherein the received signal is subject to intersymbol interference.

3. The method of Claim 1 wherein the received signal is subject to multipath interference.

4. The method of Claim 1 wherein said received signal is an orthogonal frequency division multiplexed signal.

5. The method of Claim 1 wherein the step of determining estimated symbols includes performing a Fast Fourier Transform ("FFT").

6. The method of Claim 5 wherein the number of samples in each of said N blocks is a function of the size of the FFT.

7. The method of Claim 1 wherein the step of determining if said block is corrupted includes using a multipath estimator.

8. The method of Claim 1 wherein at least one of said frames includes a guard band.

9. The method of Claim 8 wherein said guard band comprises a copy of a fourth predetermined number of samples ("J") in said frame.

10. The method of Claim 9 wherein the fourth predetermined number of samples is a function of an amount of multipath interference for which said received signal is expected to be subjected.

11. The method of Claim 10 wherein N is an integer less than or equal to said fourth predetermined number of samples.

12. The method of Claim 9 wherein the step of creating N blocks of said second predetermined number of samples comprises the steps of:

(i) determining a fifth predetermined number of samples ("K") to be included in each of said N blocks;

(ii) creating a first one of said N blocks comprising the first K samples in said frame;

(iii) creating one of said N blocks comprising K samples whereby the first sample is J/(N-1) samples after the first sample of the previously created block of samples; and

(iv) repeating step (iii) until step (iii) has been performed a total of N-1 times.

13. The method of Claim 12 wherein for step (ii), the K samples are other than the first K samples in said frame.

14. The method of Claim 12 wherein for step (iii), the first sample in at least one of said N blocks is other than J/(N-1) after the first sample in the previously created block of samples.

15. The method of Claim 1 wherein said estimated symbols are bit soft decisions.

16. A method for providing data bits from a received orthogonal frequency division multiplexed signal wherein said signal was transmitted through a channel subject to multipath interference, comprising the steps of:

(a) partitioning the received signal into frames each comprising a predetermined number of received time domain samples representative of received frequency domain symbols;

(b) for at least one of said frames, creating N blocks of the received samples such that each received sample is included in at least one of said N blocks;

(c) for at least one of said N blocks:

(i) determining if said block is corrupted by multipath interference;

(ii) determining estimated freq domain symbols from the received samples in said block; and

(d) coherently combining the estimated symbols in the N blocks that are not corrupted by multipath interference to thereby provide said data bits.

17. The method of Claim 16 wherein the received signal is subject to intersymbol interference.

18. The method of Claim 16 wherein the step of determining estimated symbols includes performing a Fast Fourier Transform ("FFT").

19. The method of Claim 18 wherein the number of samples in each of said N blocks is a function of the size of the FFT.

20. The method of Claim 16 wherein the step of determining if said block is corrupted includes using a multipath estimator.

21. The method of Claim 16 wherein at least one of said frames includes a guard band.

22. The method of Claim 21 wherein said guard band comprises a copy of a predetermined number of samples ("J") in said frame.

23. The method of Claim 22 wherein the predetermined number of samples is a function of the expected amount of multipath interference in said channel.

24. The method of Claim 23 wherein N is an integer less than said predetermined number of samples.

25. The method of Claim 22 wherein the step of creating N blocks of the received samples comprises the steps of:

(i) determining a number of samples ("K") to be included in each of said N blocks;

(ii) creating a first one of said N blocks comprising the first K samples in said frame;

(iii) creating one of said N blocks comprising K samples whereby the first sample is J/(N-1) samples after the first sample of the previously created block of samples; and

(iv) repeating step (iii) until step (iii) has been performed a total of N-1 times.

26. The method of Claim 25 wherein for step (ii), the K samples are other than the first K samples in said frame.

27. The method of Claim 25 wherein for step (iii), the first sample in at least one of said N blocks is other than J/(N-1) after the first sample in the previously created block of samples.

28. The method of Claim 16 wherein said estimated symbols are bit soft decisions.

29. In a method for determining data bits from a received signal containing symbols in frames wherein said signal was transmitted through a channel subject to multipath interference, wherein said method includes the steps of:

(a) partitioning the signal into frames each comprising a first and a second set of samples; and

(b) determining for at least one of the frames said data bits from said first set of samples;

the improvement comprising the steps of:

(i) for at least one of said frames, creating N blocks of samples such that each sample in the first and second set of samples is a member of at least one of said N blocks;

(ii) for at least one of said N blocks:

(A) determining if said block is corrupted by multipath interference;

(B) determining estimated symbols from the first and second set of samples in said block; and

(iii) coherently combining the estimated symbols in the N blocks that are not corrupted by multipath interference to thereby determine said data bits.

30. The method of Claim 29 wherein said received signal is an orthogonal frequency division multiplexed signal.

31. The method of Claim 29 wherein the step of determining estimated symbols includes performing a Fast Fourier Transform ("FFT").

32. The method of Claim 31 wherein the number of samples in each of said N blocks is a function of the size of the FFT.

33. The method of Claim 29 wherein the step of determining if said block is corrupted includes using a multipath estimator.

34. The method of Claim 29 wherein said second set of samples comprises a copy of a predetermined number of samples from said first set of samples.

35. The method of Claim 34 wherein the predetermined number of samples is a function of the expected amount of multipath interference in said channel.

36. The method of Claim 29 wherein said estimated symbols are bit soft decisions.

37. A receiver for providing data bits from a received signal comprising frames containing a first predetermined number of samples, comprising:

(a) means for creating N blocks of a second predetermined number of samples in said frame;

(b) means for determining if one of said N blocks is corrupted;

(c) means for determining estimated symbols from the samples in one of said blocks;

(d) means for coherently combining the estimated symbols in a third predetermined number of said N blocks that are not corrupted to thereby provide said data bits.

38. The receiver of Claim 37 wherein the received signal is subject to intersymbol interference.

39. The receiver of Claim 37 wherein said received signal is an orthogonal frequency division multiplexed signal.

40. The receiver of Claim 37 wherein the means for determining estimated symbols comprises a Fast Fourier Transform ("FFT") circuit.

41. The receiver of Claim 40 wherein the number of samples in each of said N blocks is a function of the size of the FFT.

42. The receiver of Claim 37 wherein the means for determining if one of said N blocks is corrupted comprises a multipath estimator.

43. The receiver of Claim 37 wherein at least one of said frames includes a guard band.

44. The receiver of Claim 43 wherein said guard band comprises a copy of a fourth predetermined number of samples ("J") in said frame.

45. The receiver of Claim 44 wherein said fourth predetermined number of samples is a function of an amount of multipath interference for which said received signal is expected to be subject.

46. The receiver of Claim 45 wherein N is an integer less than or equal to said fourth predetermined number of samples.

47. The receiver of Claim 37 wherein said estimated symbols are bit soft decisions.

48. A system for communicating data bits in a signal comprising frames containing symbols, over a channel subject to multipath interference, comprising:

(a) a transmitter for creating said frames including a payload portion and a guard time portion wherein the samples in said guard time portion are copies of selected samples in said payload portion, and for transmitting said frames; and

(b) a receiver for receiving said frames and determining the data bits from estimated symbols derived from received samples in the payload portion and at least a part of the guard time portion to thereby communicate said data bits.

49. The system of Claim 48 wherein said received signal is an orthogonal frequency division multiplexed signal.

50. The system of Claim 48 wherein said receiver includes a Fast Fourier Transform circuit.

51. The system of Claim 48 wherein said receiver includes a multipath estimator.

52. The system of Claim 48 wherein said receiver comprises:

(a) means for receiving said frames;

(b) means for creating N blocks of the received samples in said frame;

(c) means for determining if one of said N blocks is corrupted;

(d) means for determining estimated symbols from the received samples; and

(e) means for coherently combining the estimated symbols in the subset of N blocks that are not corrupted.

53. The system of Claim 52 wherein said estimated symbols are bit soft decisions.